

Abstract

5 A quantum cipher communication system is disclosed in
which the sender is equipped with a laser light source (1) and a
light attenuator (4), the recipient is equipped with a amplifying
and voltage measuring device (8). Mirrors (3) and (5) are movable
by a distance as small as the wave length of a light to vary the
phase of the signal light (S). The light attenuator (4) is used to
weaken the intensity of the signal light (S) to an extent as
10 represented by a single photon or so such that a change in its
quantum mechanical state is detectable.

The quantum cipher communication system disclosed is
highly useful as a cipher communication system which will make
any attempt to wiretap by a third party unsuccessful.

097870229 031301
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